

**A REPORT OF THE AAWG  
RECOMMENDATIONS FOR REGULATORY ACTION TO PREVENT  
WIDESPREAD FATIGUE DAMAGE IN THE COMMERCIAL AIRPLANE FLEET**

**Appendix B ARAC WORKING GROUP ACTIVITY REPORTS**

The following pages contain the ARAC Working Group Activity Reports given to status the Tasking Activity during the eighteen months of execution.

**A REPORT OF THE AAWG  
RECOMMENDATIONS FOR REGULATORY ACTION TO PREVENT  
WIDESPREAD FATIGUE DAMAGE IN THE COMMERCIAL AIRPLANE FLEET**

**WORKING GROUP ACTIVITY REPORT**

DATE: NOVEMBER 5, 1997

**Aviation Rulemaking Advisory Committee; Transport Airplane and Engines**

**Assigned to:** Airworthiness Assurance Working Group

**Task Title:** ANM-97-434-A - Task 5: FAR/JAR 25, Aging Aircraft

**Task Description:**

(1) Review the capability of analytical methods and their validation relative to the detection of widespread fatigue damage (WFD). Review evidence of WFD occurring in the fleet. Recommend means of collection of in-service data where data is missing. Determine extent of WFD in fleet. Extend AAWG Report on Structural Fatigue Evaluation for Aging Aircraft to be inclusive of all large transport category airplanes > 75,000 lb. GW.

(2) Establish time standards for the initiation and completion of model specific programs for prediction, verification and rectification of WFD. Recommend actions for Authorities should action not be forthcoming for certain model airplanes with discussions on the relative merits of each action proposed.

**Expected Product(s):** A task report including recommendations for FAA action.

**Schedule:**

	Forecast Completion Date	Actual Completion Date
Concept Approval	10/2/97	10/2/97
Technical Agreement	2/21/98	
ARAC Approval for Drafting	N/A	
ARAC Approval for Economic/Legal Support	N/A	
Recommendation to ARAC	2/21/99	
Recommendation to FAA	3/21/99	

**Status:** Two meetings held (9/11/97 & 10/16/97) - good progress to identify work packages and schedule issues.

**Bottlenecks:** None at this time

**Next Action:** Finish defining tasks and work packages, priorities tasks, develop schedule.

**Future Meetings:** Next meeting planned Nov. 11-12, in Atlanta. January 15, 1998 in Washington D. C.

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WORKING GROUP ACTIVITY REPORT**

DATE: February 3, 1997

**Aviation Rulemaking Advisory Committee; Transport Airplane and Engines**

**Assigned to:** Airworthiness Assurance Working Group

**Task Title:** ANM-97-434-A - Task 5: FAR/JAR 25, Aging Aircraft

**Task Description:**

(1) Review the capability of analytical methods and their validation relative to the detection of widespread fatigue damage (WFD). Review evidence of WFD occurring in the fleet. Recommend means of collection of in-service data where data is missing. Determine extent of WFD in fleet. Extend AAWG Report on Structural Fatigue Evaluation for Aging Aircraft to be inclusive of all large transport category airplanes > 75,000 lb. GW.

(2) Establish time standards for the initiation and completion of model specific programs for prediction, verification and rectification of WFD. Recommend actions for Authorities should action not be forthcoming for certain model airplanes with discussions on the relative merits of each action proposed.

**Expected Product(s):** A task report including recommendations for FAA action.

**Schedule:**

	Forecast Completion Date	Actual Completion Date
Concept Approval	10/2/97	10/2/97
Technical Agreement	2/21/98	
ARAC Approval for Drafting	N/A	
ARAC Approval for Economic/Legal Support	N/A	
Recommendation to ARAC	2/21/99	
Recommendation to FAA	3/21/99	

**Status:** Four meetings held - good progress to date working Task issues everyone is cooperating

**Bottlenecks:** Issue with definitions on WFD

**Next Action:** Get Regulatory Approval of Technical Approach

**Future Meetings:** March 2-5, 1998 Gatwick UK  
April 21-23, 1998 Long Beach CA  
June 23-25, 1998 Hamburg GR  
Aug 27-28, 1998 Williamsburg VA

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WORKING GROUP ACTIVITY REPORT**

DATE: June 10, 1998

**Aviation Rulemaking Advisory Committee; Transport Airplane and Engines**

**Assigned to:** Airworthiness Assurance Working Group

**Task Title:** ANM-97-434-A - Task 5: FAR/JAR 25, Aging Aircraft

**Task Description:**

(1) Review the capability of analytical methods and their validation relative to the detection of widespread fatigue damage (WFD). Review evidence of WFD occurring in the fleet. Recommend means of collection of in-service data where data is missing. Determine extent of WFD in fleet. Extend AAWG Report on Structural Fatigue Evaluation for Aging Aircraft to be inclusive of all large transport category airplanes > 75,000 lb. GW.

(2) Establish time standards for the initiation and completion of model specific programs for prediction, verification and rectification of WFD. Recommend actions for Authorities should action not be forthcoming for certain model airplanes with discussions on the relative merits of each action proposed.

**Expected Product(s):** A task report including recommendations for FAA action.

**Schedule:**

	Forecast Completion Date	Actual Completion Date
Concept Approval	10/2/97	10/2/97
Technical Agreement	2/21/98	3/5/98
ARAC Approval for Drafting	N/A	
ARAC Approval for Economic/Legal Support	N/A	
Recommendation to ARAC	2/21/99	
Recommendation to FAA	3/21/99	

**Status:** Six meetings held - Technical agreement on approach reached with Authorities Review Team (ART). Tasks adjusted appropriately. Definitions issue settled. NDI review completed.

**Bottlenecks:** None at this time except for time itself.

**Next Action:** Perform OEM Round-Robins on existing WFD methodologies.

**Future Meetings:** June 23-26, 1998 Hamburg GR.  
Aug 27-28, 1998 Williamsburg VA.  
Oct 6-8, 1998 Munich GR.

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WORKING GROUP ACTIVITY REPORT**

DATE: September 16, 1998

**Aviation Rulemaking Advisory Committee; Transport Airplane and Engines**

**Assigned to:** Airworthiness Assurance Working Group

**Task Title:** ANM-97-434-A - Task 5: FAR/JAR 25, Aging Aircraft

**Task Description:**

(1) Review the capability of analytical methods and their validation relative to the detection of widespread fatigue damage (WFD). Review evidence of WFD occurring in the fleet. Recommend means of collection of in-service data where data is missing. Determine extent of WFD in fleet. Extend AAWG Report on Structural Fatigue Evaluation for Aging Aircraft to be inclusive of all large transport category airplanes > 75,000 lb. GW.

(2) Establish time standards for the initiation and completion of model specific programs for prediction, verification and rectification of WFD. Recommend actions for Authorities should action not be forthcoming for certain model airplanes with discussions on the relative merits of each action proposed.

**Expected Product(s):** A task report including recommendations for FAA action.

**Schedule:**

	Forecast Completion Date	Actual Completion Date
Concept Approval	10/2/97	10/2/97
Technical Agreement	2/21/98	3/5/98
ARAC Approval for Drafting	N/A	
ARAC Approval for Economic/Legal Support	N/A	
Recommendation to ARAC	2/21/99	Partial 9/98
Recommendation to FAA	3/21/99	

**Status:** Eight meetings held — Consensus reached on regulatory approach, technical agreement on Monitoring Period. Industry Round Robin Started

**Bottlenecks:** None at this time except for time itself.

**Next Action:** Finish OEM Round Robins on existing WFD methodologies. Write Final Report

**Future Meetings:** Oct 7-9, 1998 Munich GR.  
Dec 1-4, 1998 Seattle WA  
Jan 25-29, 1999, Bristol GB.

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WORKING GROUP ACTIVITY REPORT**

DATE: December 9, 1998

**Aviation Rulemaking Advisory Committee; Transport Airplane and Engines**

**Assigned to:** Airworthiness Assurance Working Group

**Task Title:** ANM-97-434-A - Task 5: FAR/JAR 25, Aging Aircraft

**Task Description:**

(1) Review the capability of analytical methods and their validation relative to the detection of widespread fatigue damage (WFD). Review evidence of WFD occurring in the fleet. Recommend means of collection of in-service data where data is missing. Determine extent of WFD in fleet. Extend AAWG Report on Structural Fatigue Evaluation for Aging Aircraft to be inclusive of all large transport category airplanes > 75,000 lb. GW.

(2) Establish time standards for the initiation and completion of model specific programs for prediction, verification and rectification of WFD. Recommend actions for Authorities should action not be forthcoming for certain model airplanes with discussions on the relative merits of each action proposed.

**Expected Product(s):** A task report including recommendations for FAA action.

**Schedule:**

	Forecast Completion Date	Actual Completion Date
Concept Approval	10/2/97	10/2/97
Technical Agreement	2/21/98	3/5/98
ARAC Approval for Drafting	N/A	
ARAC Approval for Economic/Legal Support	N/A	
Recommendation to ARAC	3/16/99*	Partial 9/98
Recommendation to FAA	6/29/99*	

**Status:** Ten meetings held, project on schedule for — Consensus reached on all technical issues. TOR Drafted. Final report 60% complete.

**Bottlenecks:** None at this time.

**Next Action:** Finish Final Report

**Future Meetings:** Jan 25-29, 1999, Bristol GB

March 11, 1999, Washington D.C. (AAWG TASK APPROVAL)

\* DATES CHANGED TO REFLECT NORMALLY SCHEDULED TAEIG MEETING DATES

March 11, 1999

PAGE 137